

25481
121691

BY THE U.S. GENERAL ACCOUNTING OFFICE

Report To Senator Alan B. Cranston

**Safety At The Navy's Seal Beach,
California, Weapons Station Has
Improved**

When the station's Seal Beach location was established in 1944, the area was farmland and marshland. Residential and commercial encroachment has raised safety concerns in the community.

Declining workloads have enabled Seal Beach to improve operating procedures for ordnance activities, thus improving safety, particularly at its wharf.

Regarding the community's specific safety concerns, GAO found that:

- Seal Beach currently has no nuclear capabilities.
- Security appears satisfactory.
- The Navy plans to upgrade structures most vulnerable to earthquakes.
- Air traffic hazards are no greater than those of other areas of southern California.



GAO/PLRD-83-87
JUNE 10, 1983

525912

Request for copies of GAO reports should be sent to:

**U.S. General Accounting Office
Document Handling and Information
Services Facility
P.O. Box 6015
Gaithersburg, Md. 20760**

Telephone (202) 275-6241

The first five copies of individual reports are free of charge. Additional copies of bound audit reports are \$3.25 each. Additional copies of unbound report (i.e., letter reports) and most other publications are \$1.00 each. There will be a 25% discount on all orders for 100 or more copies mailed to a single address. Sales orders must be prepaid on a cash, check, or money order basis. Check should be made out to the "Superintendent of Documents".



UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

NATIONAL SECURITY AND
INTERNATIONAL AFFAIRS DIVISION

B-168700

The Honorable Alan B. Cranston
United States Senate

Dear Senator Cranston:

This report responds to your April 26, 1982, request for us to evaluate safety at the Department of the Navy's Seal Beach, California, Weapons Station.

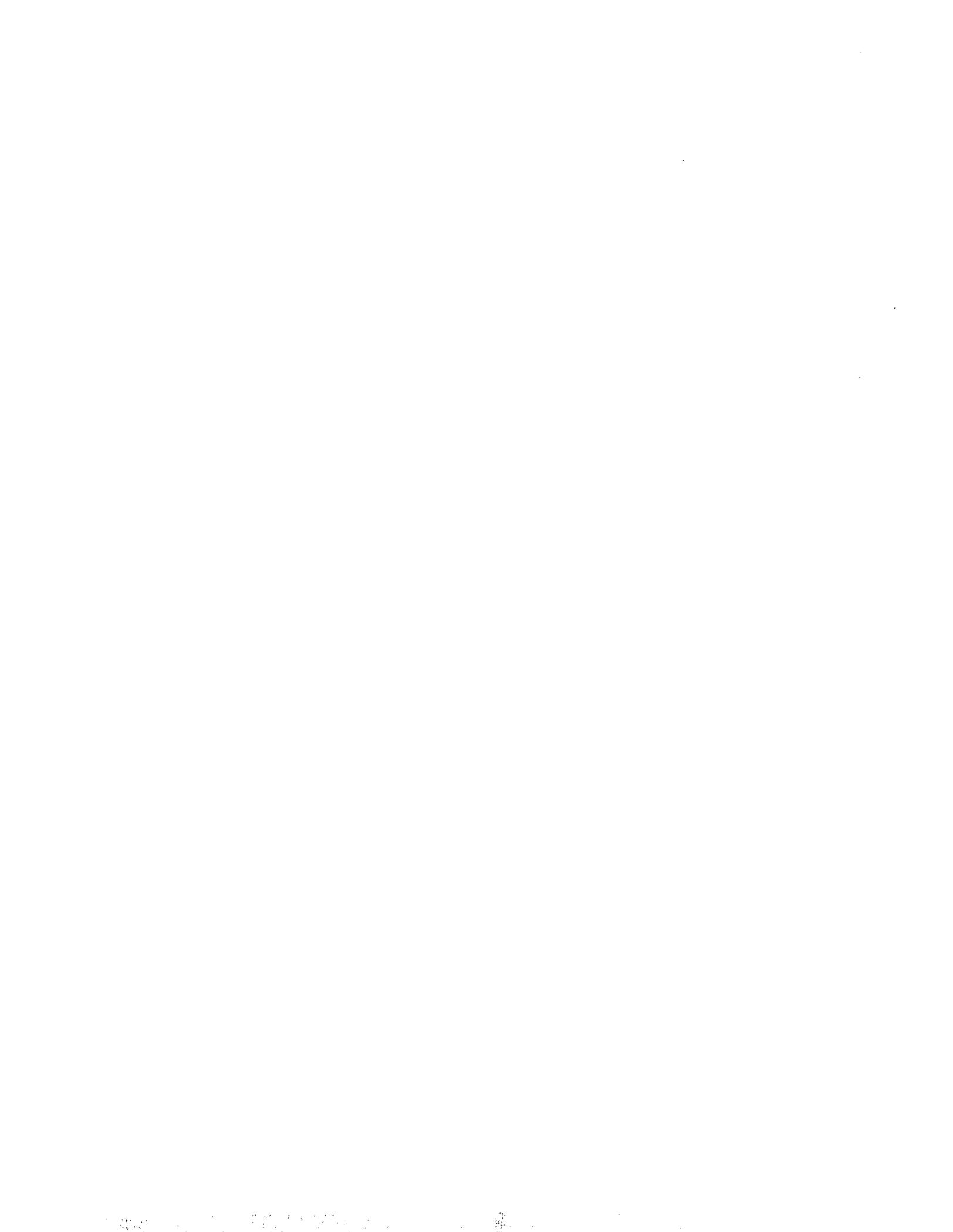
Overall, we found that declining workloads have enabled Seal Beach to improve operating procedures for ordnance activities, thus improving safety, particularly at its wharf.

As arranged with your Office, copies of this report will not be distributed until 1 day from the date of this report. At that time, we will send copies to the Director, Office of Management and Budget; the Secretary of Defense; the Secretary of the Navy; and other interested parties.

Sincerely yours,

Donald J. Horan

for Frank C. Conahan
Director



D I G E S T

The Naval Weapons Station, Seal Beach, the Navy's major ordnance activity in southern California, was established in 1944 when the area was farmland and marshland. Residential and commercial encroachment has raised safety concerns in the community.

In 1975, GAO reported on safety concerns at Seal Beach, including ordnance activities at its wharf and the transporting of ordnance across the public highway that bisects it.

GAO was recently asked to:

- Review the Navy's actions to improve safety concerns reported in 1975.
- Evaluate overall safety at Seal Beach.
- Address the community's major safety concerns about Seal Beach, including nuclear capabilities, security, earthquakes, air traffic, hazardous materials, and disaster preparedness.
- Analyze the Navy's study of west coast ordnance activities cited in response to GAO's 1975 report.

Declining workloads have enabled Seal Beach to improve operating procedures for ordnance activities, thus improving safety, particularly in the wharf area. The Departments of Defense and the Navy monitor safety at Seal Beach. (See pp. 8 to 14.)

Regarding the community's safety concerns, GAO found that:

- Seal Beach currently has no nuclear capabilities.

--Security at Seal Beach appears satisfactory.

--The Navy plans to upgrade those structures at Seal Beach most vulnerable to earthquakes.

--Seal Beach's air traffic hazards are no greater than those of other areas of southern California.

--Seal Beach is improving its management of hazardous materials.

--Seal Beach is increasing its disaster preparedness efforts. (See pp. 12, 15 to 17, and 19.)

The Navy did not complete its study of west coast ordnance activities because of higher priority work. Instead, the Navy is contracting for a capital improvement and modernization study for all its ordnance activities. (See p. 18.)

AGENCY COMMENTS

The Department of Defense concurred generally with the report. (See app. VII.)

C o n t e n t s

		<u>Page</u>
DIGEST		i
CHAPTER		
1	INTRODUCTION	1
	Prior GAO report	1
	Objectives, scope, and methodology	6
2	IMPROVED SAFETY AT SEAL BEACH	8
	Current activities	8
	Efforts to improve safety	12
3	COMMUNITY CONCERNS	15
	Proposed safety projects	15
	Security	15
	Earthquakes	16
	Air traffic	17
	Hazardous materials	17
4	OTHER ISSUES	18
	Naval Ammunition Logistics	
	System study	18
	Disaster preparedness	19
	Housing project	19
APPENDIX		
I	Letter of April 26, 1982, from Senator Alan Cranston	20
II	Map of southern California	21
III	Map of Naval Weapons Station, Seal Beach	22
IV	Vital statistics--Naval Weapons Station, Seal Beach	23
V	Personnel (authorized)--Naval Weapons Station, Seal Beach	24
VI	Existing land use--Naval Weapons Station, Seal Beach	25
VII	Letter of June 1, 1983, from the Assistant Secretary of Defense (Manpower, Reserve Affairs and Logistics)	26
	ABBREVIATIONS	
DOD	Department of Defense	
GAO	General Accounting Office	



CHAPTER 1

INTRODUCTION

The U.S. Naval Weapons Station, Seal Beach, the Navy's major ordnance (ammunition and weapons) activity in southern California, supports the fleet homeported in San Diego/Long Beach and other activities in the region. ^{1/}^{2/} Located along the coast, it covers about 5,000 acres in the city of Seal Beach. Its October 1982 authorized personnel complements were 1,040 civilians, 89 Navy, and 137 Marine Corps. ^{3/}

When the weapon station's location at Seal Beach was established in 1944, the area was mostly farmland and marshland. Subsequent residential and commercial encroachment (see p. 2) has raised safety concerns in the community.

PRIOR GAO REPORT

Our report on the "Evaluation of the Navy's Ordnance Facility at Seal Beach, California" (LCD-75-330, July 10, 1975), concentrated on safety concerns, possible alternative west coast locations for Seal Beach, and possible alternative uses for its property. (A map of Seal Beach is shown in app. III.)

Wharf area

Navy-owned Anaheim Bay, a rectangular basin protected from the sea by jetties, is, along with its channel, the only access between Huntington Harbour and Bolsa Bay and the ocean. (See p. 4.) The Navy's 1,000-foot wharf at Seal Beach has two berths for ship ordnance activities and one for loading and repairing barges. (See p. 5.) Depending on their size and amounts of ordnance involved, ships are loaded and unloaded at the wharf and/or at anchorages 3 miles at sea inside the Long Beach Harbor breakwater. Barges transport ordnance between the wharf and anchorages.

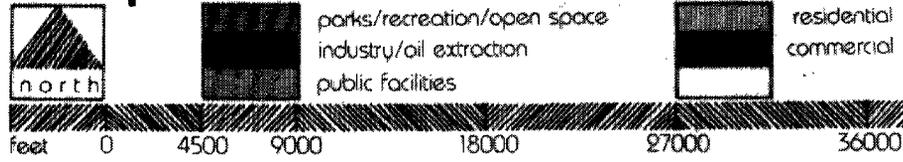
^{1/}In this report "Seal Beach" refers to the station's Seal Beach location. References to city of Seal Beach are so identified.

^{2/}Appendix II shows Seal Beach and the station's annexes at Fallbrook, Corona, and Pomona, California.

^{3/}Appendixes IV and V detail the station's acreage, facilities, budget, payroll, and personnel.



vicinity land use - seal beach



Source: Station's 1980 master plan.

Based on Department of Defense (DOD) safety standards, no more than 55,000 pounds of net explosive weight can be at the wharf at one time. Due to operational necessities, the Navy, in 1975, granted a continuing waiver increasing the limits to 125,000 pounds. In eight instances in 1973 and 1974, the limits were increased to 250,000 pounds.

At the 125,000-pound limitation, the wharf's explosive hazard zones ^{4/} extended over about 18 acres of residential and commercial property. When the limits were increased to 250,000 pounds, the zones covered about 98 acres.

The Navy eliminated the need for 250,000-pound waivers by installing new barge moorings and relocating existing moorings near the east jetty. Ordnance barges can be loaded and stored at the moorings before ships arrive, or they can be stored at the moorings after unloading ships at the 3-mile anchorages.

To eliminate the 125,000-pound waiver, the station proposed a new pier and a bypass channel. The project would have increased limits at the wharf to 200,000 pounds without exceeding safety standards and would have provided separate access between the ocean and interior bays.

Westminster Avenue and ordnance magazines

In 1975, potential hazards existed when ordnance vehicles crossed Westminster Avenue, a high-speed public street bisecting Seal Beach. (See app. III.) To address the situation, the station proposed an underpass.

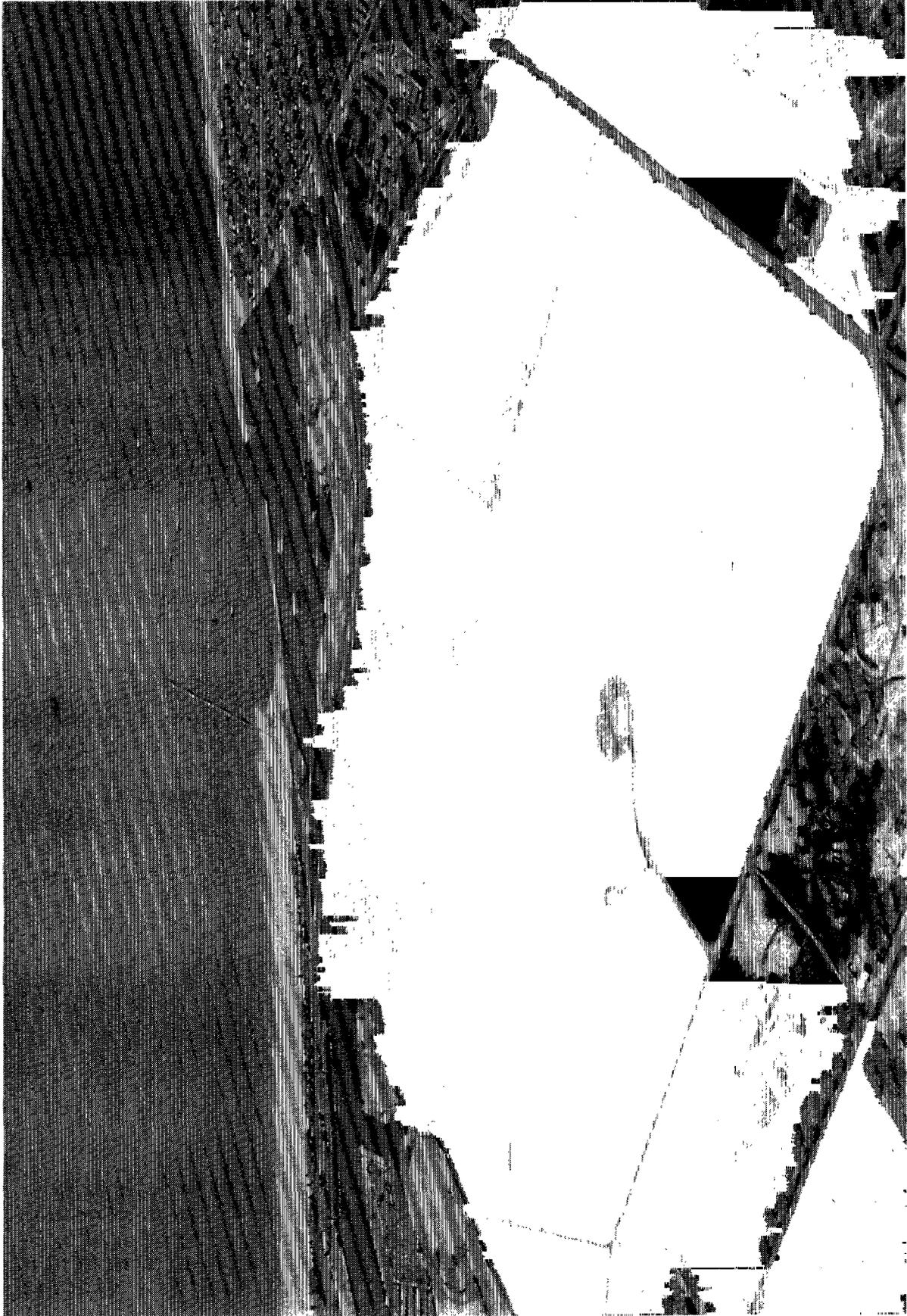
DOD standards generally require that magazines storing 50 to 30,000 pounds of high explosives be 745 or more feet from public roads. In 1975, the station sought a waiver to store more than 50 pounds in two magazines about 700 feet from Westminster Avenue.

Overall findings and the Navy's response

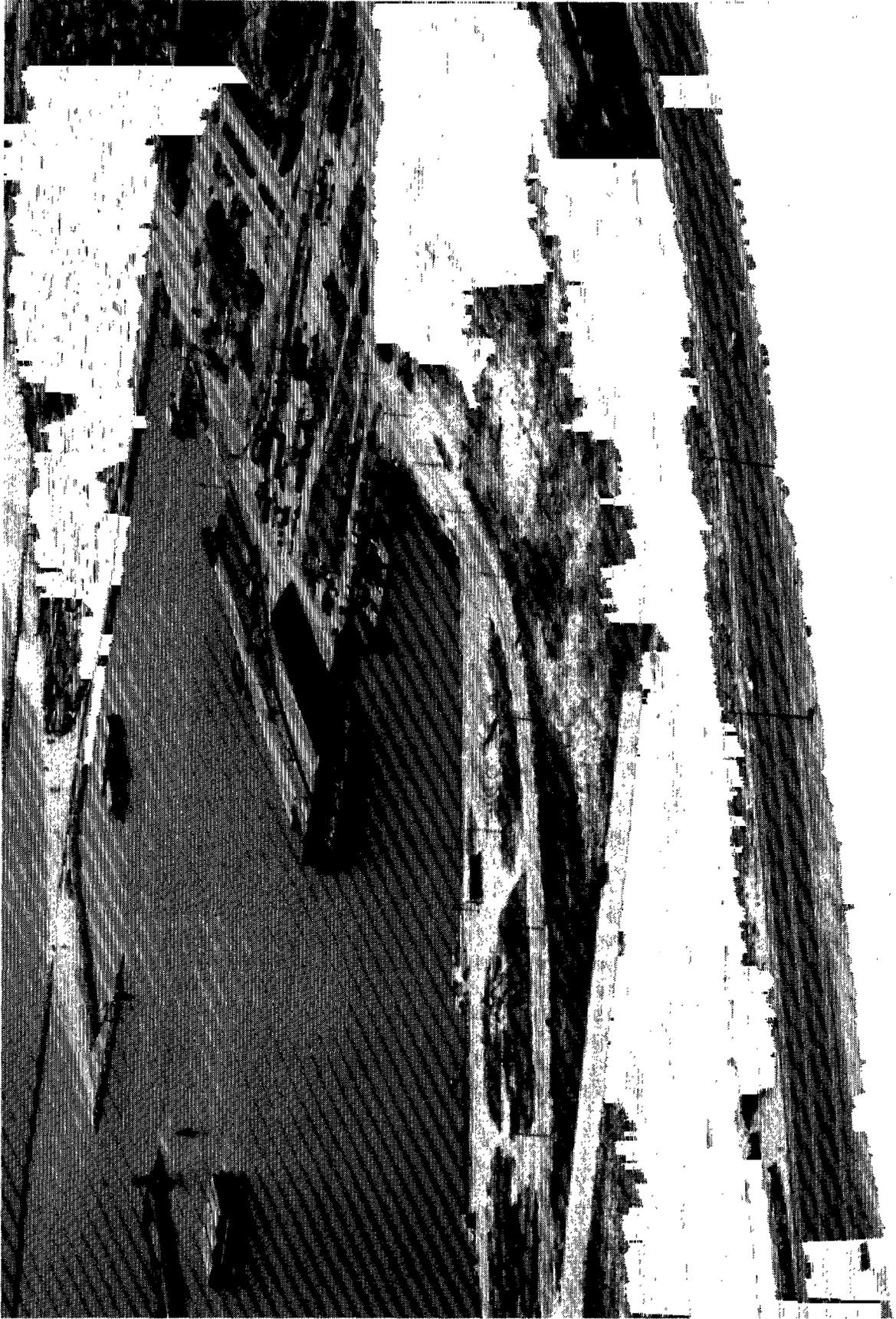
Overall, we reported that:

- Community officials supported the station's presence at Seal Beach.
- Seal Beach had the only wharf in southern California capable of handling fleet ordnance requirements.

^{4/}Explosive hazard zones, the areas in which major impacts from explosions would occur, are the safety zones surrounding sites where ordnance is handled and stored. People and structures outside the zones could be affected; however, the further from the zones the greater the chances of avoiding injuries and damages.



Provided by U.S. Naval Weapons Station, Seal Beach, Ca.



Provided by U.S. Naval Weapons Station, Seal Beach, Ca.

--Other locations on the west coast could assume all, or part, of Seal Beach's workloads; however, each had disadvantages.

We concluded that, due to changes in the Pacific fleet's size and presence, the Navy should study its entire west coast ordnance facility requirements. The Navy stated the study would probably be coordinated with a similar east coast study. (See ch. 4.)

OBJECTIVES, SCOPE, AND METHODOLOGY

By letter dated April 26, 1982 (app. I), Senator Alan Cranston asked us to:

- Review the actions taken by the Navy to improve safety concerns reported in 1975.
- Evaluate overall safety at Seal Beach.
- Analyze the Navy's study of west coast ordnance activities.

We also agreed to address the community's major safety concerns about Seal Beach, including nuclear capabilities, status of proposed safety projects, security, earthquakes, air traffic, hazardous materials, disaster preparedness, and a proposed housing project.

We obtained data from and/or met with representatives of:

- The city of Seal Beach, including the mayor, the city council, the city manager, the superintendent of schools, the school board, and the police department.
- The Navy and DOD, including the Naval Weapons Station, Seal Beach; the Explosives and Nuclear Weapons Safety Section, Deputy Chief of Naval Operations (Logistics); the Safety Office, the Ammunition Systems Group, and the Office of the Inspector General, Naval Sea Systems Command; the Naval Facilities Engineering Command; the Ammunition and Hazardous Materials Handling Review Board, Chief of Naval Operations; the Naval Investigative Service; the Long Beach Naval Shipyard; and the Department of Defense Explosives Safety Board.

--The Seal Beach Nuclear Action Group; the U.S. Coast Guard; the Federal Aviation Administration; the California Coastal Commission; and the Orange County Fire Department, Harbor Patrol, and Office of Emergency Preparedness.

We reviewed and analyzed records, data, reports, and studies, including the station's 1970 and 1980 master plans. ^{5/} Our review was performed in accordance with generally accepted government audit standards.

^{5/}The plans, done by the Naval Facilities Engineering Command, identify facility requirements.

CHAPTER 2

IMPROVED SAFETY AT SEAL BEACH

Declining workloads have enabled the station to improve operating procedures for ordnance activities at Seal Beach, thus improving safety, particularly in the wharf area.

Installation of the new barge moorings eliminated the need for 250,000-pound waivers at the wharf. Although the new pier and bypass channel have not been constructed, the 125,000-pound waiver was canceled in 1977 when net explosive weight limits were reduced to 55,000 pounds.

The only existing exemption or waiver at Seal Beach impacting the public allows small boats to use Anaheim Bay and the channel. According to DOD, the exemption, which expires in 1986, will be renewed.

While safety at Seal Beach has improved, there are still safety issues that concern the community. (See ch. 3.) Also, increased workloads could negate some, or all, of the improvements in operating procedures.

CURRENT ACTIVITIES

The station's major functions include ordnance receipt, storage, segregation, issue, maintenance, and rework; intermediate-level maintenance for surface and air-launched guided missiles; final acceptance of the STANDARD missile; and the Weapons Quality Engineering Center Laboratory (Seal Beach), the Fleet Analysis Center (Corona), the Gage and Standards Center (Pomona), and the Metrology Engineering Center (Pomona). ^{1/}_{2/}

Ordnance is transported in and out of Seal Beach by ship, barge, truck, and rail. Ships and barges are loaded and unloaded at the wharf and/or the 3-mile anchorages. Trucks enter and exit at Westminster Avenue, while trains enter and exit at Bolsa Chica Road. (See app. III.)

Seal Beach is leasing a building to the Department of Energy for prototype demonstration, evaluation, and training of critical recycle and assembly systems for a gas centrifuge

^{1/}Fallbrook receives, stores, maintains, and issues air-launched guided missiles to Navy and fleet Marine forces and provides ordnance support to the Marine Corps.

^{2/}Appendix VI details land use at Seal Beach.

enrichment plant under construction at Portsmouth, Ohio. The lease limits the building's use to hardware demonstrations involving nonnuclear materials.

In fiscal year 1968, about 56,500 gross tons of ordnance were handled at the wharf and about 105,700 gross tons were transported by truck and rail. By fiscal year 1982, gross tonnage had declined to 11,700 and 32,500, respectively. (See p. 10.)

In 1982, about 170 ships were serviced and there were about 8 truck shipments daily. There are about two barge shipments a month between Seal Beach and North Island Naval Air Station, San Diego.

In 1976, Seal Beach operated with two waivers and seven exemptions. As of November 1982 it had two waivers and two exemptions.

In addition to the small boats exemption, the Navy leases agricultural land inside the explosive hazard zones for Seal Beach's magazines. The waivers allow ordnance storage in a facility lacking adequate sprinklers and the occupancy of a building inside the wharf's explosive hazard zones. The station has approved plans to eliminate both waivers.

Although none of Seal Beach's explosive hazard zones encumber community property (see p. 11), the station is considering reducing net explosive weight limits for the wharf and some magazines. Since limits at the wharf were reduced in June 1977, there have been 16 temporary waivers--1 since May 1978--for ordnance activities exceeding 55,000 pounds.

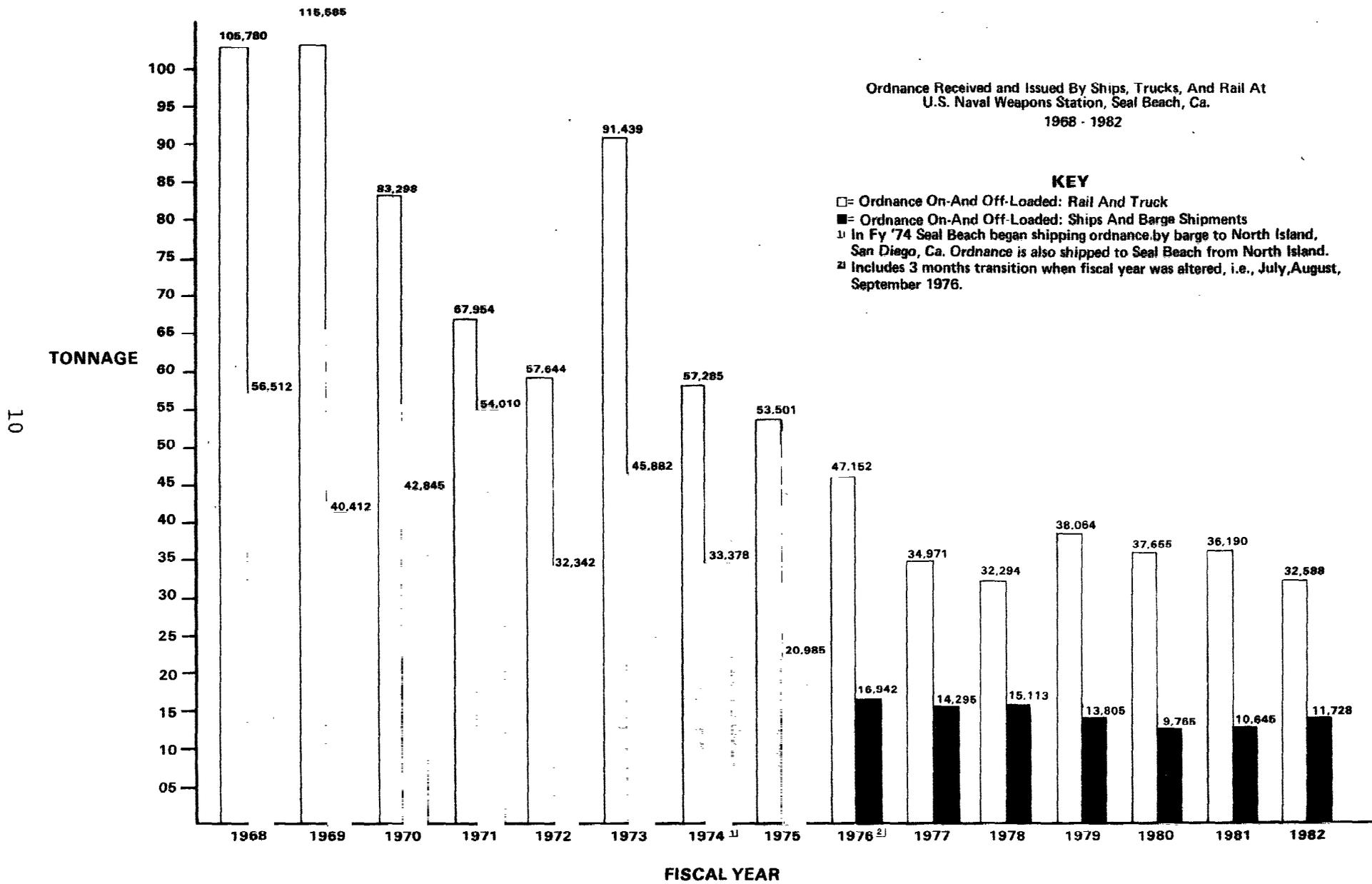
Net explosive weight limits for Seal Beach's 129 ordnance magazines (see p. 13) vary depending on construction and size, while their quantity-distance arcs, which are based on quantities and types of stored ordnance, determine their distances from public roads and inhabited buildings. We found, in October 1982, that the magazines'

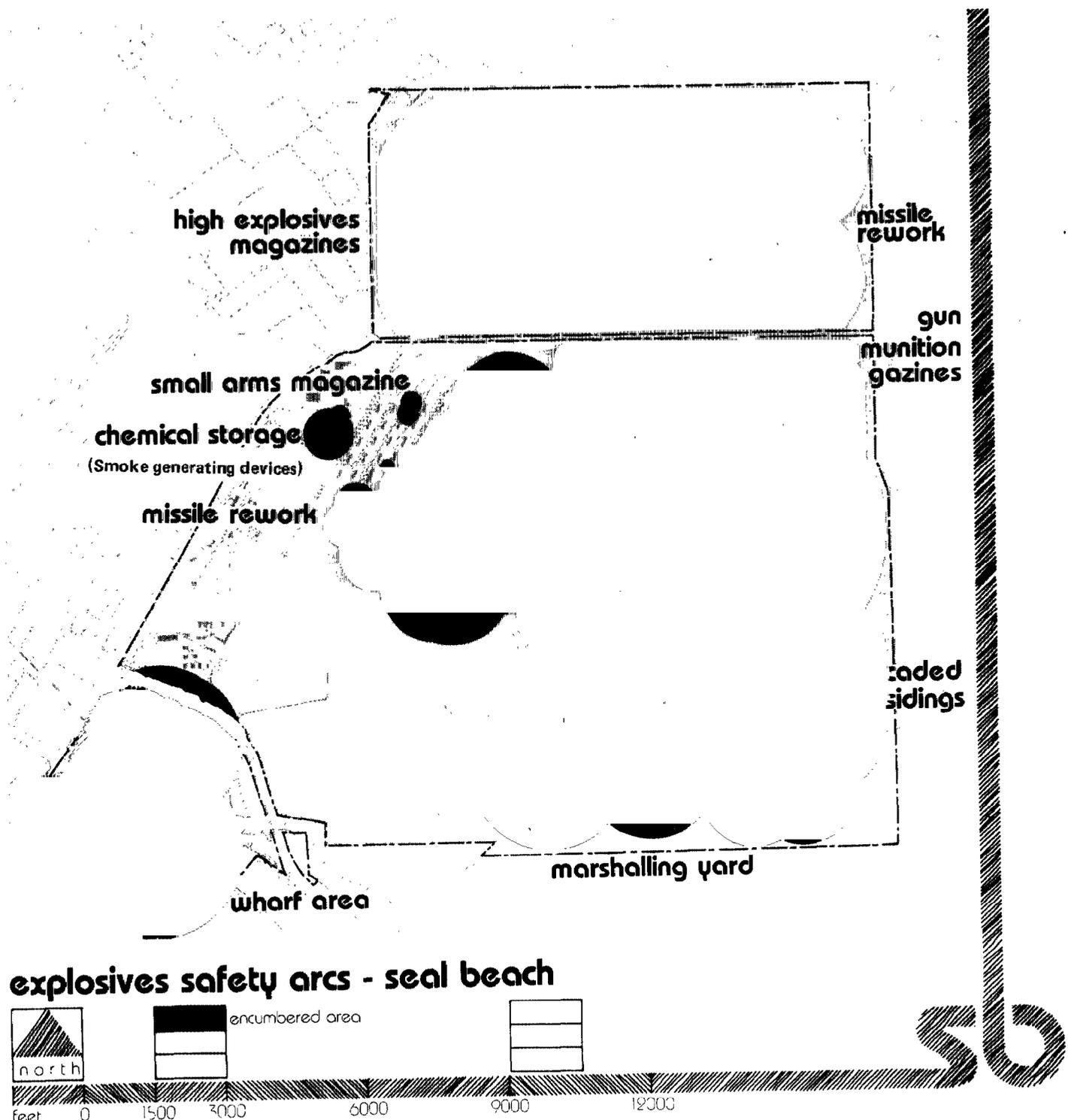
- quantity-distance arcs fell within the station's Seal Beach boundaries (see p. 11),

- stored gross tonnage was about 67 percent of authorized capacity, and

- stored net explosive weights were less than authorized limits.

Twenty-five of Seal Beach's 28 high explosives magazines have authorized limits of 500,000 pounds. The station's storage limits, however, ranged from 30,000 to 225,000 pounds.





Source: Station's 1980 master plan.

In October 1982 stored net explosive weights in the 28 magazines were less than the station's limits.

In 1975, the station sought an exemption in net explosive weight limits for two magazines near Westminster Avenue. The exemption was eliminated in 1978 when limits were brought into compliance. Subsequently, DOD revised its standards for ordnance in magazines. The station is lowering the magazines' limits to the new standards.

Nuclear capabilities

In response to our inquiries, the Navy provided the following written statements concerning Seal Beach's nuclear capabilities:

"The Naval Weapons Station, Seal Beach, currently has no nuclear weapons capability. No assigned 'EMERGENCY CAPABILITY' exists at Seal Beach; however, ordnance storage facilities exist there and would be utilized with proper authorization, during emergency situations."

"The Naval Weapons Station, Seal Beach, capability for storage of nuclear weapons no longer exists. This action was executed at the direction of the Chief of Naval Operations. At present, there are no plans to resume this capability."

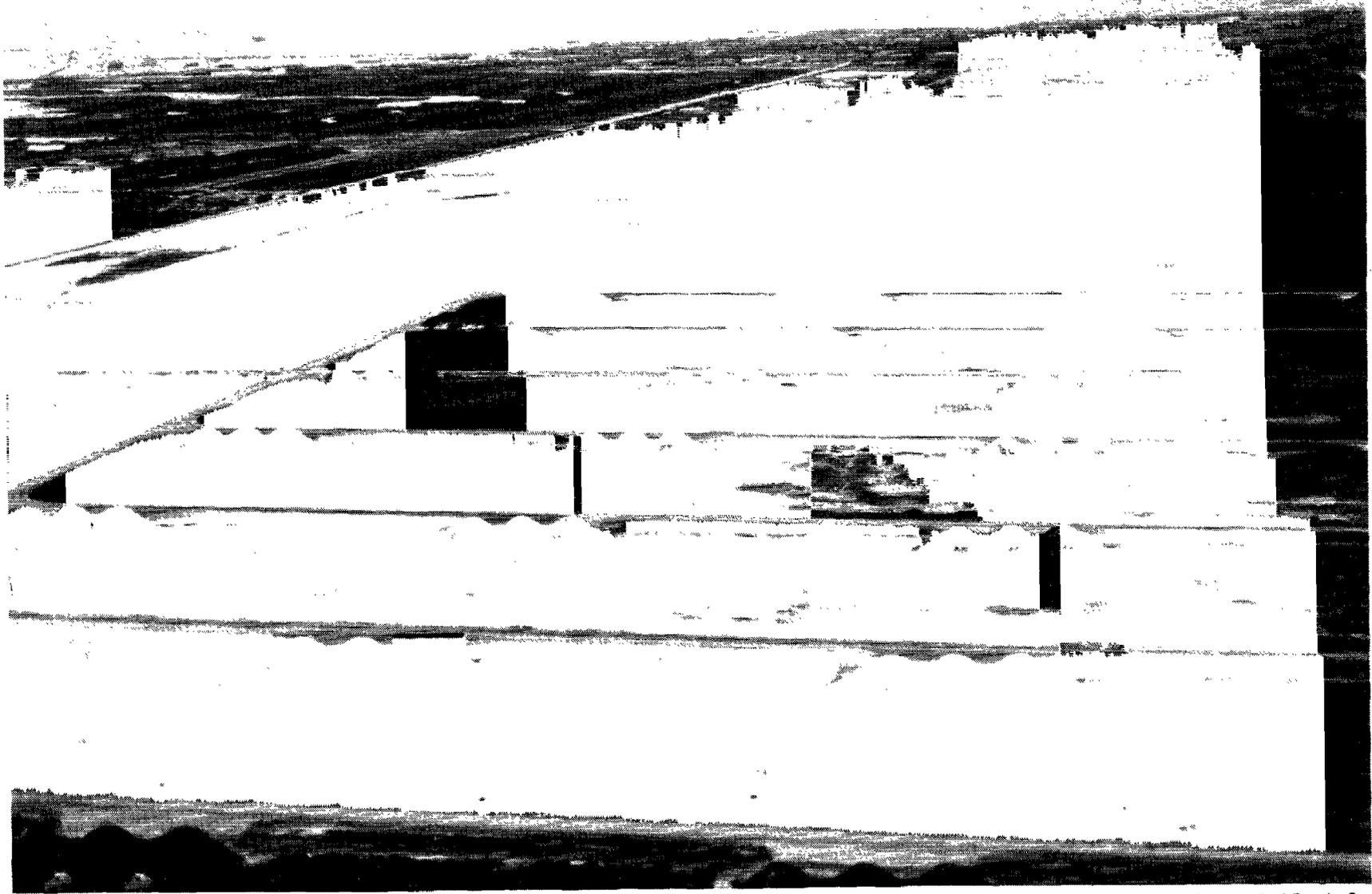
Our evaluation, including physical inspections, did not disclose any information contrary to the Navy's statements.

EFFORTS TO IMPROVE SAFETY

The station's Safety Department makes surveys; trains personnel; issues and approves safety equipment; develops standards, rules, and regulations; and investigates ordnance accidents (unplanned explosions and fires) and incidents (dropped ordnance, cracked casings, etc.). It inspects Seal Beach daily, recommends improvements, and provides guidance to personnel.

The Naval Sea Systems Command's annual inspection of Seal Beach includes operational safety, compliance with safety standards, program support, and problem areas. The command's June 1982 inspection found improper ordnance grounding points, inadequate magazine ventilators, not enough alarms in buildings, and outdated quantity-distance arc maps. The station is taking corrective actions.

Command officials stated that (1) safety conditions at Seal Beach are satisfactory and (2) declining workloads and lower net explosive weight limits are the primary reasons for improved safety.



Provided by U.S. Naval Weapons Station, Seal Beach, Ca.

The Ammunition and Hazardous Materials Handling Review Board's biennial review includes identifying operations not meeting safety standards; balancing operational readiness, safety, and economic constraints; and evaluating waivers and exemptions. The Board's September 1982 review found no major problems and validated Seal Beach's waivers and exemptions.

Board members stated that, given constraints imposed by community encroachment, safety at Seal Beach is satisfactory.

The DOD Explosives Safety Board's annual survey includes inspecting magazines and reviewing plans for constructing or modifying ordnance facilities. The Board's January 1982 survey recommended operating changes at the railroad marshalling yard and relocating two functions outside existing quantity-distance arcs. The station is taking corrective actions.

Board members stated that safety conditions have improved at Seal Beach in recent years, particularly at the wharf.

CHAPTER 3

COMMUNITY CONCERNS

Safety issues of concern to the community include status of proposed (1975) safety projects, security, earthquakes, air traffic, and hazardous materials.

PROPOSED SAFETY PROJECTS

The station's 1970 master plan states a new pier and a bypass channel would improve safety and efficiency in loading and unloading large ships, decrease safety waivers, and lessen possibilities of private boats and Navy ships colliding. The station proposed the project in September 1971 and, after feasibility studies, submitted it in June 1975. The project is in the Navy's fiscal year 1989 construction program.

The Chief of Naval Operations stated the new barge moorings, the wharf's lower net explosive weight limits, and the estimated project cost (\$69.3 million) have lessened the pier and bypass channel's priority. Navy officials noted that safety hazards and security risks from private boats are minimal, since ordnance activities during weekends are rare and the boats' transit time in the bay is usually short.

As an alternative to the bypass channel, the Navy supports a new access to Huntington Harbour under consideration by Orange County and California. The California Coastal Commission opposes the project because of issues involving area wetlands, and it is unlikely it will be approved.

The station, in 1954, proposed an overpass for the Westminster Avenue crossing. In 1968, it was redesigned as an underpass and was recommended in the station's 1970 master plan.

In 1972, an exemption to transport uncontainerized missiles across Westminster Avenue was granted. It was canceled in June 1977 due to the short distance involved, the station's control over the intersection's traffic lights, and the station's adherence to transportation standards. The project was eliminated when warning lights in both directions were installed.

SECURITY

Seal Beach has clearly defined perimeters and personnel identification control systems. The most secure areas have lighted perimeters, guards, and alarms. Marines guard entry points to Seal Beach and ordnance areas. Civilian DOD guards patrol the other areas, including the wharf on an around-the-clock basis.

The Orange County Harbour Patrol and station personnel patrol Anaheim Bay. Seal Beach's trespassing incidents generally involve fishing and sunbathing intrusions.

The station's Physical Security Review Committee monitors security at Seal Beach. The physical security specialist evaluates buildings and work areas. The station's efforts to improve security at Seal Beach include (1) limiting access to restricted areas, (2) revising security manuals, and (3) developing disaster preparedness plans.

The Naval Sea Systems Command triannually inspects security at Seal Beach. Although the April 1980 inspection found security generally conformed to Navy regulations, the command directed Seal Beach to expand its key control system, integrate security functions, upgrade perimeter fences and warning signs, seek concurrent Federal jurisdiction, and obtain peace officer status for police management personnel.

The first three directives were implemented. The station and the city of Seal Beach police chief opposed the jurisdictional change, citing increased costs and hampered investigations. Seal Beach's request for peace officer status was denied by the police chief.

EARTHQUAKES

The Newport-Inglewood fault passes through Seal Beach's wildlife refuge and family housing and administrative areas. (See app. III.) The fault's maximum credible earthquake is estimated at 6.5 to 7.3 on the Richter scale, with a 6.0 or greater earthquake occurring every 75 years. The fault's greatest recorded earthquake, 6.3 in 1933 in Long Beach, caused extensive damage in the Seal Beach area, including destroying a bridge on what is now station property.

The station has identified those structures at Seal Beach most vulnerable to earthquakes and plans to upgrade them. Navy officials stated that (1) design and construction minimizes magazines' susceptibility to earthquake damage, (2) ordnance in magazines probably would not explode since it is manufactured to prevent unplanned detonations, and (3) magazines are constructed and sited to preclude chain reaction explosions.

Two phenomena associated with earthquakes could impact Seal Beach. Liquefaction occurs when earthquake shock waves cause soils to become suspended in water, diminishing their capability to support structures. Navy officials cite minor damage in the wharf area and tilting magazines as the greatest liquefaction dangers. Tsunamis are ocean waves generated by underwater earthquakes. A major tsunami could threaten Seal Beach's underground electrical lines.

AIR TRAFFIC

Commercial, private, and military aircraft are supposed to fly at 1,000 feet or higher over Seal Beach. A Federal Aviation Administration official stated Seal Beach's air traffic hazards are no greater than those for other areas of southern California.

About four commercial jets fly over Seal Beach daily to land at Long Beach Airport 5 miles away. The landing routes do not pass over magazines. The airport's takeoff routes do not pass over Seal Beach.

Since January 1, 1976, Seal Beach has experienced one plane crash and two forced landings. In May 1980, a private plane, trying to land in heavy fog at nearby Meadowlark Airport, crashed near the wildlife refuge. The forced landings were private aircraft experiencing mechanical problems.

HAZARDOUS MATERIALS

California's Department of Health Services reviews Seal Beach's management of hazardous materials. An engineering firm is developing the station's operational plan, along with a hazardous spills contingency plan and the design for a hazardous materials storage facility.

Seal Beach's few industrial functions generally limit its hazardous materials to paint stripping solutions, oil, fuel, and insecticides and pesticides. Seal Beach's water is tested weekly, and monthly certifications are sent to the State.

The Navy's June 1982 environmental engineering survey found that personnel handling oil spills were inadequately trained and hazardous chemical wastes were improperly stored. Seal Beach (1) plans to renovate a building to eliminate the storage problems, (2) is seeking a contractor to dispose of the chemical wastes, and (3) employees received training in managing hazardous materials, including oil spills.

CHAPTER 4

OTHER ISSUES

NAVAL AMMUNITION LOGISTICS SYSTEM STUDY

The Navy's planned three-phase study of west coast ordnance facility requirements was supposed to (1) identify major problems, (2) develop and compare alternative solutions and establish implementation programs, and (3) provide special studies and master plans for installations and regional complexes.

The Naval Facilities Engineering Command's May 1978 report on the first phase--"Naval Ammunition Logistics System Study"--found serious systemwide problems, including:

- conflicts between operational requirements, safety, and economic considerations;
- potential impacts on civilian communities from accidents;
- poor geographic relationships between fleet homeports and ordnance installations;
- inadequate capability for maintaining and assembling certain weapons systems;
- operational limitations relative to large ships; and
- excessive transporting of ordnance.

For Seal Beach, the study cited excessive ordnance handling, storage and maintenance limitations, community encroachment and incompatible land use, and inefficient servicing of large ships.

Phases 2 and 3 were not done due to higher priority work, including the companion study of east coast ordnance activities and facilities planning for the submarine base at Kings Bay, Georgia.

The Naval Sea Systems Command, in July 1982, committed funds for an "Ordnance Field Activity Capital Improvement and Modernization Plan." The \$2.4 million four-phase study will identify and support projects to sustain readiness, modernize facilities, reduce duplication, and improve ordnance activities. Eleven ordnance shore activities, including Seal Beach, will be studied, with contract award scheduled for 1984.

DISASTER PREPAREDNESS

The station is developing procedures for handling disasters at Seal Beach and plans to stage disaster scenarios to evaluate procedures and personnel. Seal Beach's disaster preparedness coordinator attends meetings of the Orange County Cities Emergency Management Organization, which coordinates with the Federal Emergency Management Agency. Station personnel also participate in external disaster drills, such as the State's October 1982 earthquake exercise.

HOUSING PROJECT

The Navy plans to purchase and/or construct 200 two-bedroom, family housing units for enlisted personnel in Long Beach/Los Angeles. Although the Navy is advertising for existing housing clusters (50 or more units), it is unlikely the local housing market can provide the units.

If it cannot purchase housing, the Navy will construct the 200 units--estimated to cost \$16 million--at Seal Beach. (See app. III.) Construction would probably start in October 1983 and be completed by October 1984.

The Seal Beach site provides adequate Navy-owned land, does not lie within explosive hazard zones, and meets all State seismic requirements. The housing would be segregated from Seal Beach, probably by a chain link fence, with direct access to public roads. The Seal Beach Police Department and the Orange County Fire Department would service the housing.

Navy officials stated that housing on weapons stations is not unique. If projects comply with safety, noise, health, and pollution requirements, there are no regulations against siting them on weapons stations.

ALAN CRANSTON
CALIFORNIA

United States Senate
WASHINGTON, D.C. 20510

April 26, 1982

Mr. Charles A. Bowshe
Comptroller
General Accounting Office
441 G Street, N.W.
Washington, D.C. 20548

Dear Mr. Bowshe,

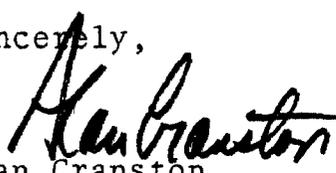
I am writing to request that the General Accounting Office (GAO) undertake a follow-on study of the safety conditions at the Navy Ordnance Facility at Seal Beach, California. In 1975 the GAO evaluated the safety problems related to the station, examined alternative locations for the station on the West Coast, and looked into alternative uses for the station's property. At the time of the study, the Department of the Navy also indicated that it was reviewing all of its ordnance facilities, an action supported by GAO.

Because of my deep interest in the safety of the facility and for the local residents, I am requesting that the GAO perform a follow-up study to determine what actions have been taken to improve the safety of the Seal Beach facility and to determine what safety problems now exist. I would also request that the GAO assess the Navy study that reviewed its entire West Coast ordnance facility requirements and whether any steps should be taken with respect to this study.

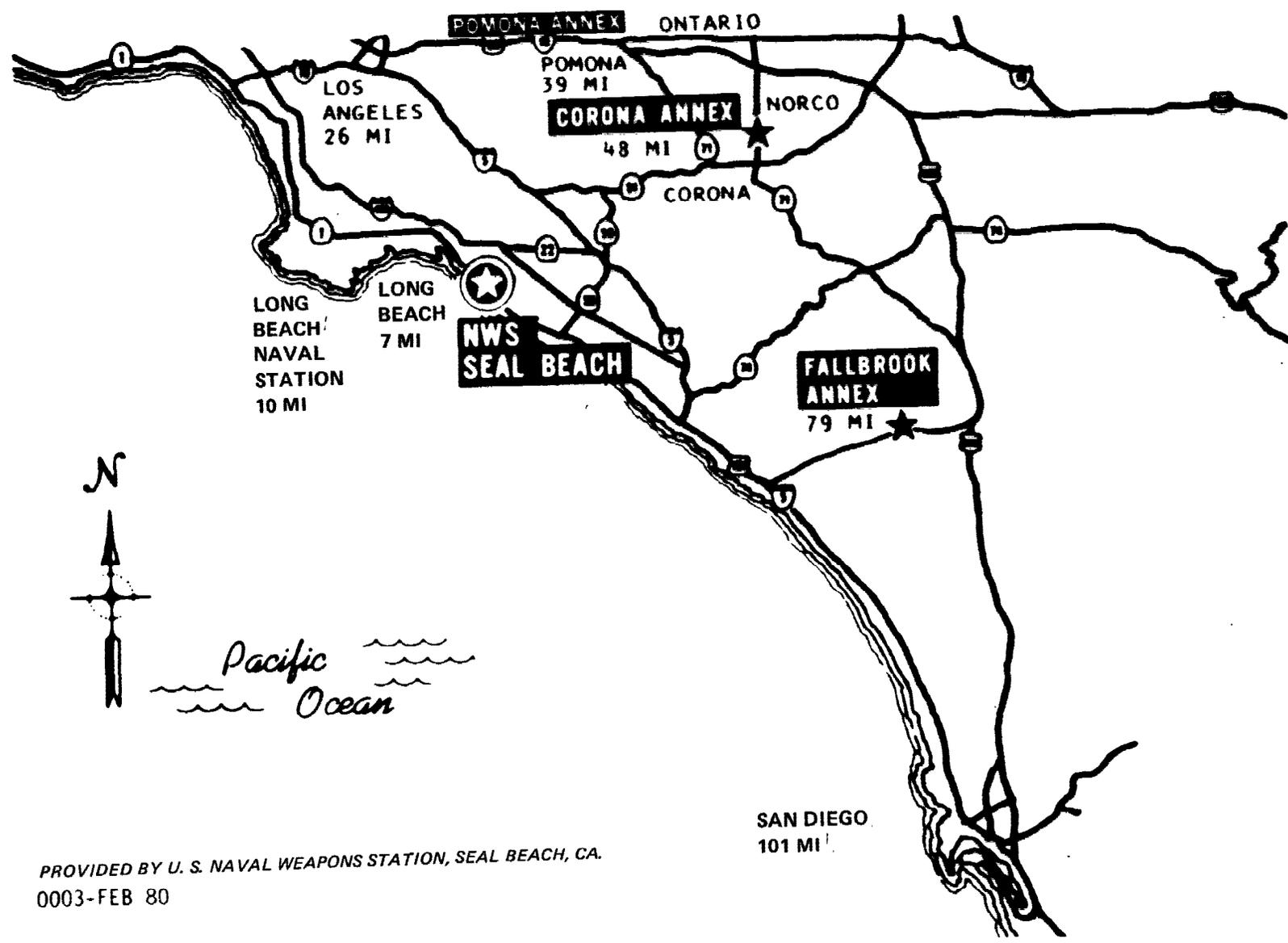
I very much appreciate your looking into this matter and look forward to receiving your report as soon as possible.

With best wishes,

Sincerely,

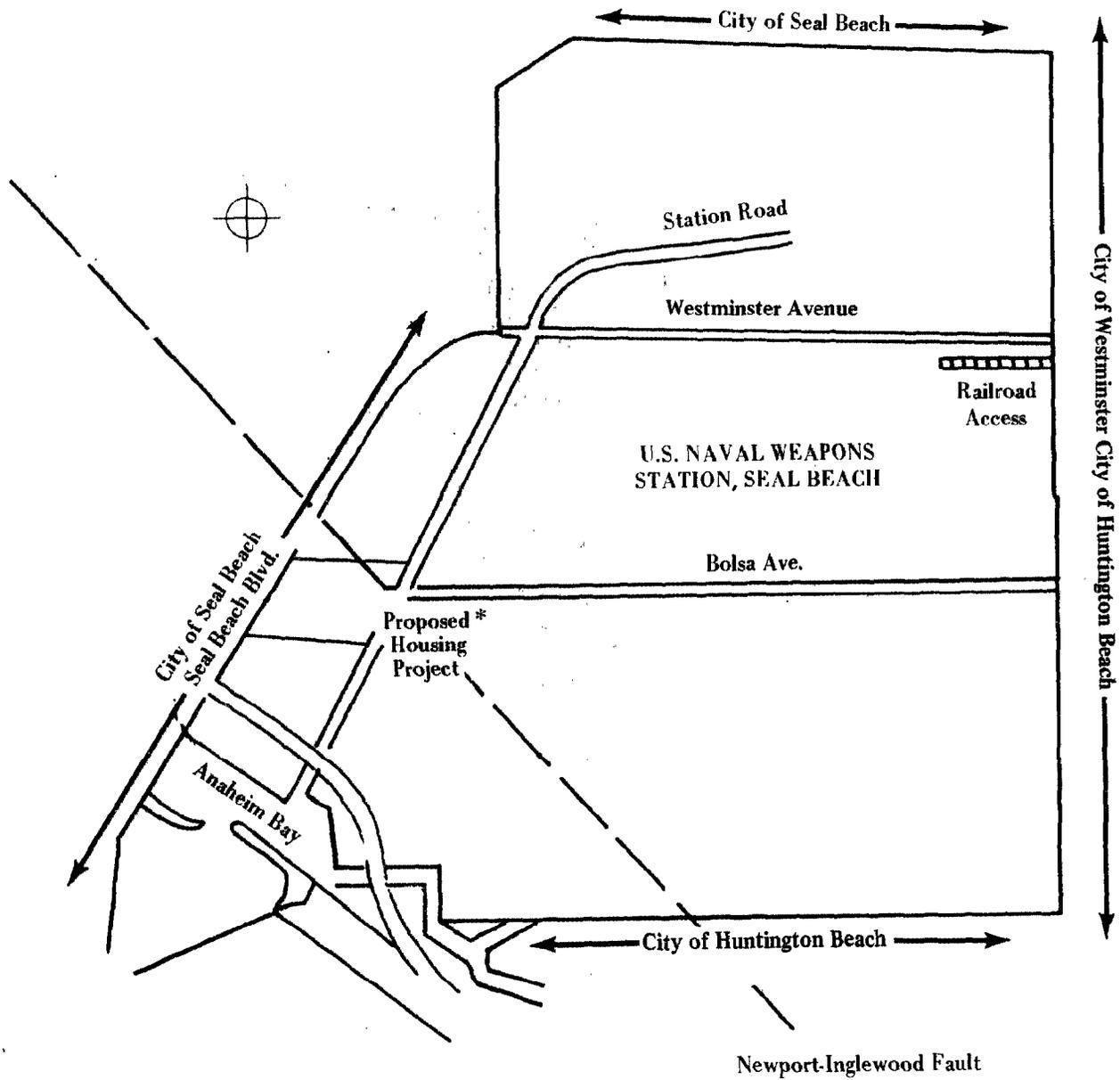

Alan Cranston

NAVAL WEAPONS STATION SEAL BEACH DISTANCE TO MAJOR ACTIVITIES AND FACILITIES



21

PROVIDED BY U. S. NAVAL WEAPONS STATION, SEAL BEACH, CA.
0003-FEB 80



**Note: Approximate locations.
Map not drawn to scale.*

NAVAL WEAPONS STATION, SEAL BEACH

VITAL STATISTICS

	SEAL BEACH	CORONA ANNEX	FALLBROOK ANNEX	POMONA ANNEX ***	TOTAL
LAND AREA (ACRES)	5,000	135	8,850	-	13,985
RAILROAD (MILES)	65	-	20	-	85
ROADS (MILES)	89	16	120	-	225
BUILDINGS	228	52	96	4	381
MAGAZINES	129	-	186	-	327
PAYROLL *	25	19	5	6	55
BUDGET *	57	58	**	20	135

* AMOUNTS ARE IN MILLIONS OF DOLLARS--(BUDGETED FY 83)

** INCLUDED IN SEAL BEACH BUDGET

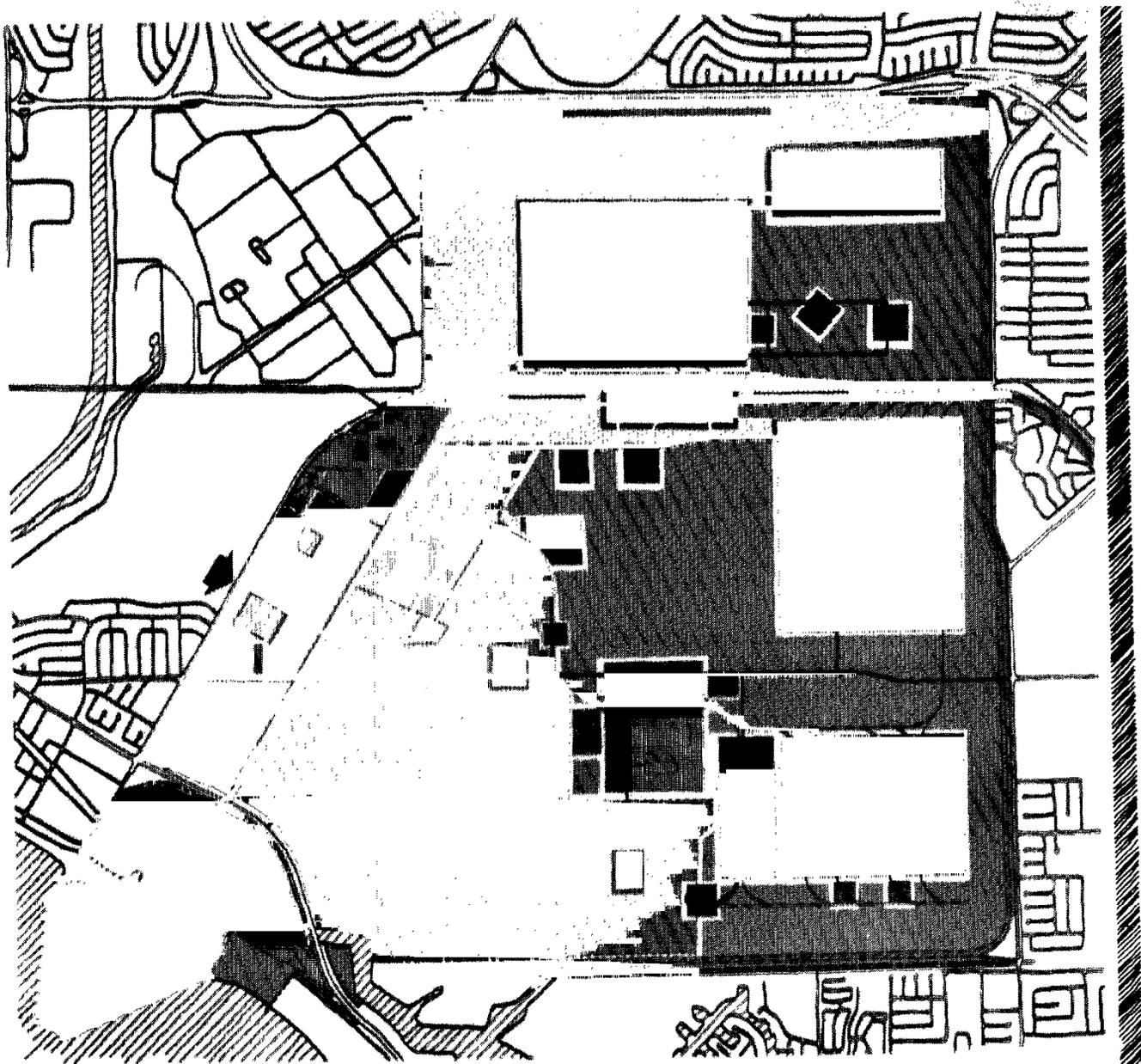
*** TENANT ACTIVITY

PROVIDED BY U. S. NAVAL WEAPONS STATION, SEAL BEACH, CA.

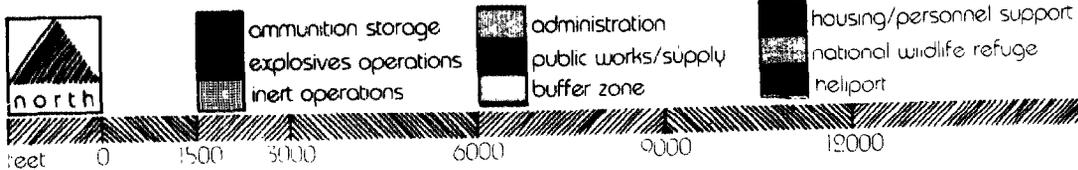
NAVAL WEAPONS STATION, SEAL BEACH
PERSONNEL (AUTHORIZED)

	CIVIL SERVICE	NAVY	USMC	TOTAL
SEAL BEACH	1,040	89	137	1,266
CORONA ANNEX	597	2	0	599
FALLBROOK ANNEX	196	5	82	283
POMONA ANNEX	194	0	1	195
TOTAL	2,027	96	220	2,343

PROVIDED BY U.S. NAVAL WEAPONS STATION, SEAL BEACH, CA.



existing land use - seal beach



50

Source: Station's 1980 master plan.



MANPOWER,
RESERVE AFFAIRS
AND LOGISTICS

ASSISTANT SECRETARY OF DEFENSE

WASHINGTON, D.C. 20301

1 JUN 1983

Mr. Donald J. Horan
Director, Procurement, Logistics, and
Readiness Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Horan:

This is in response to your letter of May 2, 1983, to the Secretary of Defense concerning the draft General Accounting Office (GAO) report (Code No. 945827) entitled, "Safety at Navy's Seal Beach, California, Weapons Station Has Improved" (OSD Case No. 6251).

The report represents a great deal of useful effort and thoughtful consideration. With the exception of a few comments in enclosure 1, we concur generally with its findings and conclusions. Minor corrections have been annotated on the attached copy of the report (pages 3,8,9,14, and 24), enclosure 2.

The Department of Defense is aware that the reduced explosives limits for the wharf and waterfront area have been accomplished under peacetime conditions. Increases in these explosives limits may be necessary during periods of national emergency.

We appreciate your thoughtful, continued interest in our safety program.

Sincerely,

James N. Juliana
James N. Juliana
Principal Deputy Assistant
Secretary of Defense
(Manpower, Reserve Affairs, and Logistics)

Enclosure

GAO note: Page references in this appendix have been changed to agree with those of the final report.

DOD COMMENTS ON
GAO DRAFT REPORT DATED MAY 2, 1983
(GAO CODE NO. 945827) OSD CASE NO. 6251

"SAFETY AT NAVY'S SEAL BEACH, CALIFORNIA,
WEAPONS STATION HAS IMPROVED"

FINDINGS

- o FINDING A: Although Safety At Seal Beach Has Improved There Are Still Some Concerns. GAO found that, declining workloads have permitted the station to improve operating procedures for ordnance activities at Seal Beach, which have improved safety however, (1) there are still community concerns for some safety related issues, and (2) increased workloads could negate some operating procedure improvements. GAO further found that (1) installation of the new barge moorings eliminated the need for 250,000 pounds waivers at the wharf--DoD safety standards require not more than 55,000 pounds of net explosives at the wharf at one time, (2) the 125,000 pounds waiver was cancelled in 1977 when net explosive weight limits were reduced to 55,000 pounds, (3) two waivers regarding storage will be eliminated, and (4) the existing exemption or waiver at Seal Beach impacting the public expires in 1986--allows small boats to use the Anaheim Bay and the channel. (GAO noted that the U.S. Naval Weapons Station, Seal Beach is (1) the Navy's major ordnance (ammunition and weapons) activity in southern California, (2) supports the fleet homeported in San Diego/Long Beach and other activities in the region, (3) covers about 5,000 acres in the City of Seal Beach along the coast and (4) when it was originally established in 1944 the area was mostly agriculture and marshlands with subsequent residential and commercial encroachment. GAO further noted that (1) the station's major functions include ordnance receipt, storage, segregation, issue, maintenance and rework; intermediate-level maintenance for surface and air launched guided missiles, (2) by 1982 gross tonnage at the wharf had declined, (3) in 1976 Seal Beach operated with 2 waivers and 7 exemptions--as of November 1982 it had 2 waivers and 2 exemptions, and (4) although none of Seal Beach's explosive hazard zones encumber community property the station is considering reducing net explosive weight limits for the wharf and some magazines.) (pp. 1, 9, and 12, GAO Draft Report)

COMMENTS: Concur with the following comment. Clarify that the public traffic route distance exemption which expires in 1986 will undoubtedly be renewed due to necessity. The unfunded FY 89 MILCON Project, P-064 (Ammunition Pier and Bypass Channel) if constructed will minimize the exposure to small boat traffic.

- o FINDING B: Net Explosive Weight Limits For Seal Beach Not Exceeded. GAO found that, although 25 of Seal Beach's 28 high explosives magazines have authorized limits of 500,000 pounds, the station's storage limits have ranged from 30,000 to 225,000 pounds--in October 1982 stored net explosive weights were less than the authorized limits. GAO further found that (1) quantity-distance arcs fell within the station's Seal Beach boundaries, and (2) stored gross tonnage was about 67 percent of authorized capacity. (GAO noted that net explosive weight limits for Seal Beach's magazines vary depending on construction and size--quantity-distance arcs are based on quantities and types of stored ordnance and the distance from public roads and inhabited buildings. GAO further noted that, subsequent to 1978, DoD revised its standards for ordnance in magazines and the station is lowering the magazines' limits to meet the new standards.) (pp. 9 and 12, GAO Draft Report)

COMMENT: DoD concurs.

- o FINDING C: Seal Beach Currently Has No Nuclear Capabilities. GAO found that, through written Navy statements, (1) the Naval Weapons Station currently has no nuclear weapons capability--however, ordnance storage facilities exist that would be utilized, with proper authorization, during emergency situations, and (2) the station's capability for storage of nuclear weapons no longer exists. (p. 12, GAO Draft Report)

COMMENT: DoD concurs.

- o FINDING D: Inspections of Seal Beach Indicate Efforts To Improve Safety. GAO found that NAVSEA's June 1982 inspection found improper ordnance grounding points, inadequate magazine ventilators, not enough alarms in buildings, and outdated quantity-distance arc maps--however, the station is taking corrective actions. GAO further found that (1) the Ammunition and Hazardous Materials Handling Review Board's review found no major problems and validated Seal Beach's waivers and exemptions--board members stated that given the constraints imposed by community encroachment, safety at Seal Beach is satisfactory and (2) the DoD Explosives Safety Board's January 1982 survey recommended operating and relocation changes with the station taking corrective actions. (GAO noted that the station's Safety Department inspects Seal Beach daily, recommends improvements, and provides guidance to personnel.) (pp. 12 and 14, GAO Draft Report)

COMMENT: DoD concurs.

- o FINDING E: Community Concern Over Status of Proposed (1975) Safety Projects. GAO found that community concerns include the status of proposed (1975) safety projects. GAO further found that, although the 1970 master plan stated that a new pier and by-pass change would improve safety and efficiency and the project is in the Navy's fiscal year 1989 construction program, new barge moorings, the wharf's lower net explosive weight limits, and the pier and by-pass channel's estimated cost have lessened its priority. (GAO noted that as an alternative to the by-pass channel, the Navy supports a new access to Huntington Harbor, however, it is unlikely it will be approved due to opposition from the California Coastal Commission.) (p. 15, GAO Draft Report)

COMMENT: DoD concurs.

- o FINDING F: Community Concerns Over Safety--Station Improves Security. GAO found that the station's efforts to improve security include (1) limiting access to restricted access, (2) revising security manuals, and (3) developing disaster preparedness plans. GAO further found, that the April 1980 NAVSEA inspection found security generally conformed to Navy regulations, however, the Command directed Seal Beach to (1) expand its key control system, (2) integrate security functions, (3) upgrade perimeter fences and warning signs, (4) seek concurrent Federal jurisdiction, and (5) obtain peace officer status for police management personnel--the first three have been implemented. (p. 16, GAO Draft Report)

COMMENT: DoD concurs.

- o FINDING G: Earthquakes, Air Traffic and Hazardous Materials Are Also Safety Related Issues of Community Concern. GAO found that other safety related issues of public concern that are being addressed include (1) earthquakes--the station has identified those structures most vulnerable and plans to upgrade them, (2) air traffic--a Federal Aviation Administration official stated Seal Beach's air traffic hazards are no greater than other areas of southern California, and (3) hazardous materials--management of such is being improved. GAO further found that Navy's June 1982 environmental engineering survey found that personnel handling oil spills were inadequately trained and hazardous chemical wastes were improperly stored, however, the station is addressing these problems. (GAO noted that two phenomena associated with earthquakes could impact Seal Beach--

(1) liquidation occurs when earthquake shock waves cause soils to become suspended in water, diminishing their capability to support structures, and (2) a major tsunami could threaten Seal Beach's underground electrical lines. GAO further noted that (1) since January 1, 1976, Seal Beach has experienced one plane crash and 2 forced landings and the landing routes do not pass over the magazines, and (2) an engineering firm is developing the station's operational plan along with a hazardous spills contingency plan and the design for a hazardous materials storage facility.) (p. 16, GAO Draft Report)

COMMENT: DoD concurs.

- FINDING H: Navy's Study of West Coast Ordnance Activities Not Completed. GAO found that the Navy did not complete its planned three phase study of west coast ordnance activities because of higher priority work--instead is contracting for a \$2.4 million 4 phase capital improvement and modernization study for all its ordnance activities with contract award scheduled for FY 1984. GAO further found that the Naval Facilities Engineering Command's May 1978 report on the first phase found serious, system wide problems, i.e., operational limitations relative to large ships, potential impacts on civilian communities from accidents. (p. 18, GAO Draft Report)

COMMENT: DoD concurs.

- FINDING I: Housing Project Planned and Disaster Preparedness Efforts Are Being Increased. GAO found that the station is developing procedures for handling disasters at Seal Beach and plans to stage disaster scenarios to evaluate procedures and personnel. GAO further found that, if it cannot purchase housing, the Navy will construct 200 housing units at Seal Beach--which is not unique on weapons stations if the housing meets requirements. (p. 19, GAO Draft Report)

COMMENT: DoD concurs.

CONCLUSIONS

- CONCLUSION 1. GAO concluded that declining workloads have enabled Seal Beach to improve operating procedures for ordnance activities, thus improving safety, particularly in the wharf area. (p 8, GAO Draft Report)

COMMENT: DoD concurs.

- CONCLUSION 2. GAO concluded that the station's management is making satisfactory efforts related to the community concerns regarding nuclear weapons capability, security, earthquakes, air traffic hazards and hazardous materials. (pp. 15-16-17, GAO Draft Report)

COMMENT: DoD concurs.

- CONCLUSION 3. GAO concluded that the station's management is increasing its disaster preparedness efforts. (p. 19, GAO Draft Report)

COMMENT: DoD concurs.

(945827)



25481

AN EQUAL OPPORTUNITY EMPLOYER

**UNITED STATES
GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548**

**OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300**

**POSTAGE AND FEES PAID
U. S. GENERAL ACCOUNTING OFFICE**



THIRD CLASS

99962526/PLRD-83-87
Robert Burke
ABC
1717 DeSales St., NW
Washington, DC 20036

M/001